

## MIAMI-DADE COUNTY PRODUCT CONTROL SECTION

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www.miamidade.gov/economy

# DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES (RER) BOARD AND CODE ADMINISTRATION DIVISION

## **NOTICE OF ACCEPTANCE (NOA)**

Hilti, Inc. 5400 S. 122<sup>nd</sup> E. Avenue Tulsa, OK 74146

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami-Dade County RER-Product Control Section to be used in Miami Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami-Dade County Product Control Section (In Miami Dade County) and/or the AHJ (in areas other than Miami Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. RER reserves the right to revoke this acceptance, if it is determined by Miami-Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Hilti Kwik-Con II+ Concrete and Masonry Screw Anchor

**APPROVAL DOCUMENT:** Drawing No. **1326-001-H**, titled "Hilti Kwik-Con II+ Fastening System for Concrete and Masonry Elements", Sheet 1 of 1, dated 10/31/2012, prepared by Hilti, Inc., signed and sealed by Thomas A. Kolden, P.E., bearing the Miami-Dade County Product Control revision stamp with the Notice of Acceptance (NOA) number and expiration date by the Miami-Dade County Product Control Section.

#### **MISSILE IMPACT RATING: None**

**LABELING:** Each box shall bear a permanent label with the manufacturer's name or logo, city, state and following statement: "Miami-Dade County Product Control Approved or MDCPCA", unless otherwise noted herein.

**RENEWAL** of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

**TERMINATION** of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

**ADVERTISEMENT:** The NOA number preceded by the words Miami-Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

**INSPECTION:** A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official. This NOA **renews and revises NOA # 07-0924.03** and consists of this page 1, evidence pages E-1, as well as approval document mentioned above.

The submitted documentation was reviewed by Carlos M. Utrera, P.E.

MIAMI-DADE COUNTY
APPROVED

12/13/2012

NOA No: 12-0625.05 Expiration Date: August 3, 2017 Approval Date: December 20, 2012 Page 1

## **NOTICE OF ACCEPTANCE:** EVIDENCE SUBMITTED

#### A. DRAWINGS

1. Drawing No. 1326-001-H, titled "Hilti Kwik-Con II+ Fastening System for Concrete and Masonry Elements", sheet 1 of 1, dated 10/31/2012, prepared by Hilti, Inc., signed and sealed by Thomas A. Kolden, P.E.

#### B. TESTS

1. Test reports on corrosion resistance per ASTM G 85, Annex 5 and TAS 114, Appendix E of 3/16"x 2 3/4" and #14 x 2 3/4" Kwik-Con II+ anchors, both prepared by Hurricane Engineering & Testing, Inc, Test Reports No. **HETI-12-S114** and **HETI-12-S115** respectively, both dated 06/08/2012 and signed and sealed by Rafael E. Droz-Seda, P.E.

#### "Submitted under NOA # 07-0924.03"

2. Test report on tension and shear capacity of anchors per ASTM E 488-96 and corrosion resistance per ASTM G 85, Annex 5 and TAS 114, Appendix E, Test Report No. 3286190, dated 08/16/2007, signed and sealed by Thomas A. Kolden, P.E.

#### C. CALCULATIONS

1. None.

#### D. MATERIAL CERTIFICATIONS

1. None.

#### E. QUALITY ASSURANCE

1. Miami-Dade Department of Regulatory and Economic Resources (RER)

### F. STATEMENTS

- 1. Statement letter of code conformance to 2010 FBC issued by Element Material Technology, dated 11/01/2012, signed and sealed by Thomas A. Kolden, P.E.
- 2. Private label agreement dated 05/02/2012.

#### "Submitted under NOA # 07-0924.03"

- 3. Code compliance letter issued by Stork Twin City Testing Corporation, dated 12/14/2007, signed and sealed by Thomas A. Kolden, P.E.
- 4. No financial interest letter issued by Stork Twin City Testing Corporation, dated 12/14/2007, signed and sealed by Thomas A. Kolden, P.E.

Carlos M. Utrera, P.E.
Product Control Examiner
NOA No 12-0625.05
Expiration Date: August 3, 2017

Approval Date: December 20, 2012

## HILTI Kwik-Con\_II+

## **DESCRIPTION:**

Carbon steel screw anchors have a minimum yield strength of 137 ksi and a minimum tensile strength of 138 ksi. The screw anchors have a zinc rich organic coating with a minimum thickness of 8 µm. Three—sixteenths and 1/4-in. carbon steel screw anchors are available in 1-1/4, 1-3/4, 2-1/4, 2-3/4, 3-1/4, 3-3/4 and 4 inch lengths.

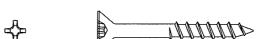
Stainless steel screw anchors have a minimum yield strength of 157 ksi and a minimum tensile strength of 184 ksi. Three-sixteenths and 1/4-in. stainless steel screw anchors are available in 1-1/4 and 2-3/4 inch lengths.

## **DESIGN LOADS:**

KWIK-CON II+ - PHILLIPS FLAT HEAD

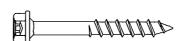
### CARBON STEEL SCREWS

EMBEDMENT DEPTH	CONCRETE 3 Tension	3000 psi Shear	C90 CONCRE Tension	TE BLOCK Shear
1"	119	135	136	140
1-3/4"	264	135	_	
1"	161	367	136	251
1-3/4"	394	367		
	DEPTH 1" 1-3/4" 1"	DEPTH Tension  1" 119 1-3/4" 264 1" 161	DEPTH Tension Shear  1" 119 135 1-3/4" 264 135 1" 161 367	DEPTH Tension Shear Tension  1" 119 135 136 1-3/4" 264 135 - 1" 161 367 136



KWIK-CON II+ - TORX HEX WASHER HEAD





## STAINLESS STEEL SCREWS

ANCHOR SIZE	EMBEDMENT DEPTH	CONCRETE Tension	3000 psi Shear	C90 CONCRET Tension	TE BLOCK Shear
3/16"	1"	146	169	110	128
3/16"	1-3/4"	287	169	_	_
1/4"	1"	156	297	112	246
1/4"	1-3/4"	312	297	_	

KWIK-CON II+ - TORX FLAT HEAD

SHANK

(in.)

0.170

0.224

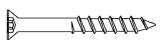
DIAMETER | DIAMETER |



NOMINAL

3/16"

1/4"



0.217

0.283

0.145

0.190

## **GENERAL NOTES:**

- 1) Design loads for concrete are based on ultimate loads divided by 4. Design loads for C90 concrete block is based on ultimate loads divided by 5.
- 2) In order to achieve the design load, a minimum edge distance of 1-1/2" for 3/16" ø screw, and 2-1/2" for 1/4" ø screw shall be observed.
- 3) Minimum Spacing of anchor shall be 2" in concrete and 3" in concrete blocks in order to achieve the design loads.
- 4) Anchor installation shall be made in accordance with Hilti's published installation instructions in the Product Technical Guide.
- 5) Anchors are restricted from use in cracked concrete as defined in ACI 355.2.

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		FOR
THREAD MAJOR (in.)	DIAMETER ROOT (in.)	



HILTI, INC. 5400 S 122nd E Ave

Tulsa, OK 74146

HILTI KWIK-CON II+ FASTENING **SYSTEM** FOR CONCRETE AND MANSONRY **ELEMENTS** 

VISION DATE: E: 10-31-12 AWING: 1326-001-H ALE: -EET NO. 1 OF 1

R OFFICE USE

PRODUCT REVISED **Building Code**